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Securities and Exchange Commission
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Dear Securities and Exchange Commission:

Here are my comments on the proposed BX Venture Exchange: The Commission should quickly approve experiments like this in the small-cap sector because of the crisis in capital formation indicated by the dramatic drop in the number of exchange-listed U.S. companies.

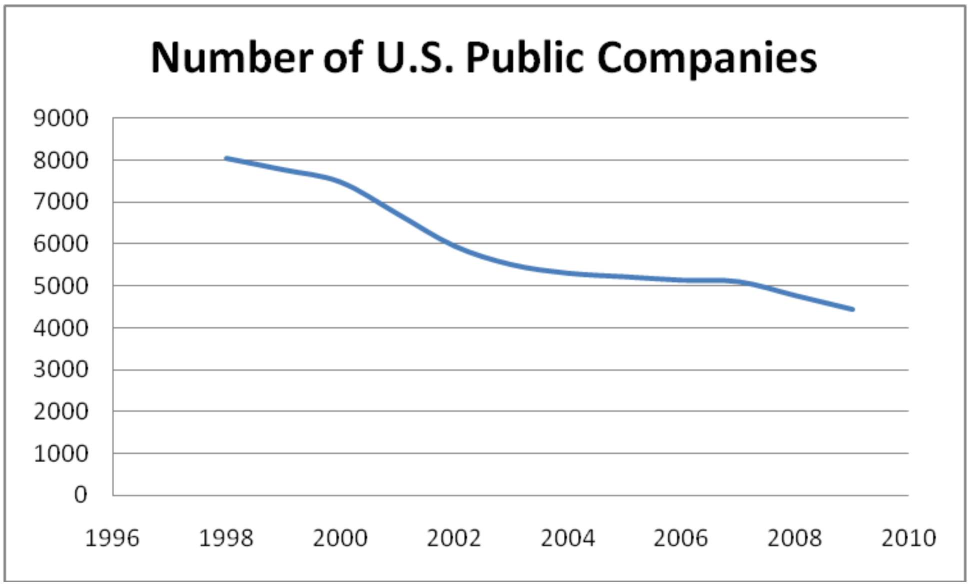
Background

NasdaqOMX proposes to relaunch the listing business of its venerable Boston Stock Exchange with a new listing business targeting smaller firms. This exchange has lower listing requirements than the other listing exchanges in the United States, although the qualitative requirements are roughly comparable to those of the previously approved listing requirements of the old Boston Stock Exchange.

[1] I am also on the boards of directors of the EDGA and EDGX stock exchanges. I am also a former member of the NASD's OTC Bulletin Board Advisory Committee. My comments are strictly my own and don't necessarily represent those of Georgetown University, EDGX, EDGA, or anyone else for that matter.

The number of publicly traded domestic companies is shrinking steadily.

The number of domestic U.S. companies listed on our exchanges has been dropping steadily for the last decade. At the end of 1997 there were approximately 8,000 domestic companies listed on the NYSE, AMEX, and NASDAQ markets.[2] By the end of the 2009 there were less than 5,000. Indeed, there are now less than 4,000 companies in the Wilshire 5000 index that includes all public US companies on the NYSE, NYSEAmex, and NASDAQ exchanges.[3]



At the current rate of decline, the SEC will be out of a job in a few decades, because there won't be many public companies left.

One could argue that the decline is a result of the dot-com bubble and bust, but the froth did not really start until well into 1998. Even still, there were only 458 internet companies which had IPOs during the bubble years from 1998 through 2000.[4] What happened to the thousands of other public companies?

This decline has not been widely noticed by most market commentators, as total stock market trading activity has continued to grow. However, much of this growth has been from derivative products such as exchange traded funds (ETFs) as well as from foreign listings.

[2] These statistics are derived from the CRSP database. To be precise, CRSP contains 8,201 US-listed domestic companies (not including preferred stocks, ETFs, ADRs, or closed-end funds) at the end of 1997, and 4,439 at the end of 2009.

[3] As of the end of October, 2010, there were 3,964.

[4] This number is based on an inspection of Professor Jay Ritter's list of internet IPOs., available at http://bear.warrington.ufl.edu/ritter/List%20of%20Internet%20IPOs.xls

The shrinking number of public companies represents a crisis in capital formation.

The public equity markets provide a vital source of liquidity to investors. Entrepreneurs and venture capitalists need to have an exit strategy for their investments or they won't invest in the first place. No investor wants a "Roach Motel" investment where they can get in but they can't get out. Typical exit strategies are to go public, or sell to a "strategic buyer" such as a competitor, which decreases competition. By providing fewer exit alternatives, our markets provide less incentive for the job-creating investments needed to spur economic growth.

Although private equity firms have picked up some of the slack in funding smaller companies, private equity investments are not the solution to this problem. Private equity firms ultimately need an exit for their investments, and they cannot just keep flipping companies between different private equity firms.

Private equity is inherently more expensive than public equity. Valuation treatises universally address the fact that liquid investments are worth more than illiquid investments. [5]

Non-public capital markets are the ultimate "two-tier" market unavailable to most investors.

Alas, private equity investments are not available to the majority of retail investors. Private equity investments are also not available to the majority of mutual funds that retail investors can buy. This deprives the general public from important investment opportunities. Only the wealthy clients of Goldman-Sachs have access to investments such as Facebook. The SEC should think long and hard about why a company as large and well known as Facebook is doing its best to avoid an IPO at this stage of its development.

Many SEC market structure policies over the last two decades have been aimed at preventing the emergence of a "two-tier" market with differential access between retail and institutional customers. Yet the growth of private equity, along with secondary market trading in forums such as Second Markets represents far more of a two-tier market than the old days when retail investors could not easily access Instinet.

This is especially ironic in that the market structure changes aimed at preventing a two-tiered market in trading are partly responsible for the dearth of IPOS. By making the market structure for small-caps identical to the large-cap market structure we have made the public markets less hospitable to smaller companies.

[5] For example, see Damodaran, Aswath, *Damodaran on Valuation*, Second Edition, Chapter 14.

Fewer public companies equal fewer jobs.

Our country is now in the midst of unacceptably high unemployment. There are approximately 4,000 fewer public companies than there were in 1997.[6] If we assume that half of the missing companies are still in business either as privately held businesses or as part of larger public companies, that still leaves approximately 2,000 fewer companies. If each of those businesses created 1,000 jobs (close to the average for IPOs), then our shrunken capital markets have resulted in two million fewer jobs, exacerbating the unemployment rate by more than one whole percentage point.

A search of the Compustat database shows that that US-listed domestic companies reported a total of 41.4 million employees at the end of 1998, and only 38.7 million by the end of 2009, a decrease of 2.7 million jobs.[7]

The Commission is neglecting its legal duty to promote capital formation by neglecting the small cap sector.

The Securities Exchange Act of 1934 gives the Commission a clear and unambiguous mandate to foster capital formation. Section 3(f) of the Securities Exchange Act of 1934 clearly states:

> (f) CONSIDERATION OF PROMOTION OF EFFICIENCY, COMPETITION, AND CAPITAL FORMATION.— Whenever pursuant to this title the Commission is engaged in rulemaking, or in the review of a rule of a self-regulatory organization, and is required to consider or determine whether an action is necessary or appropriate in the public interest, the Commission shall also consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation.

The Commission recently launched a large concept release on the U.S. equity markets.[8] Although the release mentioned in passing the Commission's duty to consider capital formation, nothing in the rest of the release indicated any concern on the part of the Commission about the drop in the number of U.S. listed public companies or indeed any curiosity as to why the number of exchange listed companies has been falling. The SEC is neglecting its legal duty to really consider capital formation.

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[6] 1997 is a good year to start this comparison because that was the year that NASDAQ significantly raised its listing standards, and it was before the wave of dot-com bubble IPOs flooded the market with poorly conceived companies.

[7] The number of employees reported in Compustat includes all employees globally. Given increasing globalization, it is likely that the decrease in the number of domestic U.S. jobs accounted for by U.S. exchange-listed companies is even greater.

[8] http://www.sec.gov/rules/concept/2010/34-61358.pdf, page 9.

The Commission should examine what it can do.

To be sure, there are numerous reasons for the decline in public companies. The SEC has control over some but not all of these. U.S. public policy over the last decade has made it much more expensive to be a public company compared with a private one. These higher costs for regulatory compliance and litigation raise the fixed costs of being a public company. This reduces the returns to investors, thus making investment (and the associated job creation) less attractive.

Shareholder litigation is costly.

One area where the SEC has little control is the absurd litigation environment faced by public companies. This is but one of the many burdens placed on public companies compared with private ones. Public companies are targets for dubious class action litigation. The United States is one of the few countries that allow shareholders to sue themselves. NERA projects 239 class action suits will be filed in the U.S. this year, of which approximately 185 are against domestic companies.[9] This means that roughly one out of every 20 US exchange-listed companies gets hit by one of these suits every year. These suits are usually settled out of court, with extortionate payoffs to the plaintiff bar and little true value to shareholders.

This litigation environment leads to higher costs in many ways. There are the direct costs of the shareholder litigation and higher director's and officer's (D&O) insurance. The cost of D&O insurance jumps by a large multiple when a firm goes public. There are also the indirect costs of management time and effort diverted by litigation issues rather than running the business. The SEC should explore whether it can establish rules that provide safe-harbors from frivolous litigation for law abiding firms while making sure that the real fraudsters are appropriately punished.

SEC interpretations have increased the cost of Sarbanes-Oxley compliance.

The bungled implementation of Sarbanes-Oxley is yet another burden on U.S. public companies, both large and small.[10] Sarbanes-Oxley §404 called for an "assessment … of the effectiveness of the internal control structure and procedures of the issuer for financial reporting." [11] Congress did not specify any

[9] http://www.nera.com/nera-files/PUB_Year_End_Trends_1210.pdf

[10] See also my earlier comments on Sarbox: http://www.sec.gov/comments/s7-24-06/s72406-188.pdf.

[11] To be precise, the law reads as follows:

SEC. 404. MANAGEMENT ASSESSMENT OF INTERNAL CONTROLS.
(a) RULES REQUIRED.—The Commission shall prescribe rules requiring each annual report required by section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d))
to contain an internal control report, which shall—
(1) state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting; and

particular level of controls, just a report on how good they were. An assessment could be as simple as a report card with letter grades: One firm's controls might be graded A, while another's might be graded B+. There could also be a report card that puts different grades on different types of controls.

A black-and white-judgment that controls are either effective or ineffective is ludicrous. There is a whole spectrum of quality between a total lack of controls and wasteful overkill. Yes this section was interpreted by accountants and regulators as a *de facto* requirement for wasteful overkill.

Traditional U.S. securities regulation is disclosure, not merit based. The underlying philosophy is to provide investors with information to permit them to make their own decisions. This philosophy should also apply to information about the quality of the information as well. The SEC's implementation of §404 was a radical departure from traditional regulation, and one done without much conscious thinking about the consequences. The implementation was *de facto* merit regulation: Effectively the regulatory-industrial complex would only permit firms with controls at the level of wasteful overkill to access US capital markets, with merit decided by accounting firms freshly spooked by the execution of Arthur Andersen.

The SEC has explicit rulemaking power under §404(a) to interpret and apply this section, yet the SEC did nothing to stop this wasteful train wreck. This demonstrated a shocking misunderstanding of the intent of Congress as well as of the economics of the companies it regulates.

Section 989(g) of the Dodd-Frank bill exempts non-accelerated filers (currently companies with a market capitalization of $75 million or less) from §404, and calls for a study of how to reduce the regulatory burden on some larger companies. One thing the SEC can do is to greatly increase the size of non-accelerated filers to include all those firms commonly thought of as "small cap", which is to say with a market capitalization less than $1 billion.[12] In addition, the SEC can provide some clear regulatory interpretations that bring §404 implementation closer to Congress' original intent. For example, it could define "effectiveness of controls" and "attest" in ways that are significantly less burdensome than they are now.

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(2) contain an assessment, as of the end of the most recent fiscal year of the issuer, of the effectiveness of the internal control structure and procedures of the issuer for financial reporting.
(b) INTERNAL CONTROL EVALUATION AND REPORTING.—With respect to the internal control assessment required by subsection (a), each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer. An attestation made under this subsection shall be made in accordance with standards for attestation engagements issued or adopted by the Board. Any such attestation shall not be the subject of a separate engagement.

[12] For example, http://www.investorwords.com/4606/small_cap.html shows that the under $1 billion figure coincides with widely used definitions of small cap.

<u>SEC market structure changes had the unintended consequence of hurting the small cap sector.</u>

The U.S. has also made extreme changes in the market structure for small companies. Traditionally, smaller companies traded in a very different market structure than larger companies. In the 1990s, smaller companies were traded in the old NASDAQ dealer market. The old NASDAQ had very large transactions costs as indicated by the bid-ask spreads. Investors who wanted to bypass the dealers and trade directly with each other through limit orders had difficulty because there was no easy way for them to broadcast their limit orders to the market. Indeed, there were widespread scandals in which many dealers allegedly colluded to maintain wide bid-ask spreads.

What is not widely appreciated is that this small-cap market prospered precisely because of those high transactions costs. Those wide bid-ask spreads provided strong financial incentives to brokerage firms to market NASDAQ securities by providing "sponsorship" and "research." Small-cap issuers had the alternative of the old American Stock Exchange (Amex), which offered demonstrably lower bid-ask spreads. Yet issuers freely chose the more expensive NASDAQ market because it provided more service in terms of raising the visibility of firms that would otherwise be neglected.

Small companies face very large challenges in reaching investors. The typical U.S. equity mutual fund holds only around 75 stocks. The typical retail investor holds only a handful of stocks. How does an issuer go from being one out of 4,000 U.S. stocks to being one of the 75 in an institutional investor's portfolio? As Nobel-prize winner Robert Merton pointed out in his seminal presidential address to the American Finance Association, investors generally don't invest in stocks they don't know about.[13] When more investors are aware of a stock, the cost of capital for the firm is lower. Small companies desperately need ways to get investors to know about them, and that is what the old NASDAQ did really well. Broker dealers had a large incentive to promote those smaller companies because they could earn a large fraction of the bid-ask spread in addition to the commission. Issuers were well aware of the higher cost their investors faced in the NASDAQ world, as the AMEX marketing engine lost no effort to inform issuers of this.[14] And yet issuers overwhelmingly chose NASDAQ, forcing AMEX into oblivion.

It worked. It created a thriving small-cap sector that became the envy of the world. Countries around the world attempted to clone the old NASDAQ system, leading to exchanges such as JASDAQ in Japan, KOSDAQ in Korea, and EASDAQ in Europe.

However, public policy from the 1990s onward focused on reducing transactions costs such as the bid-ask spread. Alas, a policy goal of pushing the bid-ask spread to zero is as misguided as a policy to set the price of bread to zero. The price of bread represents compensation to the producers of bread. If the price of bread is zero, then producers will not bake any bread. The old NASDAQ bid-ask spread represented

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[13] Merton, Robert, 1987, A simple model of capital market equilibrium with incomplete information, *Journal of Finance*, 42:3 483-510.

[14] Indeed, the situation on NASDAQ was common knowledge long before the regulators took action, as seen in Forbes' cover story: Morgenson, Gretchen, 1993, Fun and games on Nasdaq, *Forbes*, August 16, p 74-79. I have heard, but not verified, that Amex sent copies of this or a similar story to every NASDAQ-listed company.

compensation to the industry for a complex bundle of services. These services included not only matching buyer and seller, but also for information production and dissemination that was useful to the market. This complex bundle of services that are paid for through transactions costs are still not well understood by many academics, who routinely assume away transactions costs in many of their models.

Several well-meaning policies, each of which seemed to be a good idea at the time, contributed to this change. The Manning rule meant that broker dealers could no longer trade ahead of their own customers.[15] The limit order display rule meant that customer limit orders competed directly with dealer quotes, forcing bid-ask spreads to shrink. Regulations ATS and NMS have led to a gloriously competitive open architecture market that works really well to deliver lower transactions costs for the largest and most active stocks. Decimalization further shrank the minimum bid-ask spread, first from 12.5 cents to 6.25 cents, and finally to a penny.

The research settlement, launched with the goal of reducing abuses in research, has also resulted in less research into smaller companies. Faced with a sparser information environment in smaller companies, fewer investors invested. IPOs became harder to sell, and through most of the 2000s we have had a dearth of IPOs.

These changes led to dramatic reductions in the bid-ask spread. It also dramatically reduced the profitability to the industry of providing an active secondary market for smaller companies.

Firms are fleeing the U.S. markets.

We are losing public companies not only through the normal attrition of mergers and bankruptcies, but also through firms voluntarily "going dark." The number of voluntary deregistrations from our public markets increased significantly after Sarbanes Oxley.[16] To make matters worse, the SEC has made it easier for foreign issuers to deregister from US markets, rather than fix the underlying problems in the US capital markets.[17]

The Commission should encourage experimentation and innovation in this sector.

One size does not fit all.

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[15] See FINRA Interpretation IM-2110-2. Trading Ahead of Customer Limit Order, http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=3607, and NASD Notice to Members 95-43 SEC Approves Expanded Limit-Order Protection Rule, http://finra.complinet.com/en/display/display.html?rbid=2403&element_id=1913

[16] See Christian Leuz, Alexander Triantis and Tracy Yue Wang Why do firms go dark? Causes and economic consequences of voluntary SEC deregistrations, Journal of Accounting and Economics 45 (2-3), August 2008, Pages 181-208

[17] See http://www.sec.gov/rules/final/2007/34-55540.pdf.

Market structure issues bring up a large number of complex questions. There is not now, nor will there likely ever be, universal agreement on the best way to answer them. We should not attempt to go back to the bad old days of trading on the telephone or on a wooden trading floor. The crisis in capital formation in the United States calls for swift and decisive action to find ways of restarting America's growth engine. The Commission should encourage experimentation in this sector. This experimentation should include alternative methods of trading as well as just in listing requirements.

Many exchanges around the world have tried and failed to launch incubator exchanges for small-cap companies with trading mechanisms nearly identical to the large cap markets, such as the *Neur Markt* in Germany. In the United States we had the failed Amex Emerging Company Marketplace (ECM).[18] These repeated failures imply that a successful exchange for smaller companies needs to have a different trading mechanism than that for larger companies. Possible beneficial differences include:

- Different tick sizes. The Commission's original decimalization order contemplated a pilot experiment with different tick sizes to gather data on the optimal policy.[19] This pilot experiment never occurred, and the industry went straight to a one penny tick. Having a tick wide enough to provide proper protection for limit orders is essential for liquidity. Although the Venture BX proposal does not specify the tick size in the market, I would advise that the market maintain a tick of at least one penny, even for stocks well under $1.00, and that the Commission approve rules mandating that tick even for UTP trading of the stocks.

- Issuer-paid incentives for liquidity provision. Many European markets have programs in which issuing companies enter explicit agreements with financial firms to act as liquidity providers or market makers in their stocks. My understanding is that such agreements are not currently permitted under current FINRA Rules. Exceptions to these rules should be made so that exchanges have the ability to experiment with different models, including models in which issuers pay market makers directly for market making activity. We should learn from the experience of European markets that such payments can be made without increasing the risk of fraud and manipulation in this sector.

- Different rules on access fees. The Commission currently permits ECNs and exchanges to charge access fees through so called "maker-taker" pricing. If an innovative small cap exchange wants to experiment with different pricing models that would preclude access fees, then they should be permitted to do so on a market-wide basis.

- Priority rules. It is by no means obvious that time priority is the best tie breaking rule when two or more investors submit orders at the same price. Exchanges should be able to experiment with

[18] For a post-mortem of the Amex ECM, see Reena Aggarwal, and James J. Angel, The rise and fall of the Amex Emerging Company Marketplace, *Journal of Financial Economics 52 (2)*, May 1999, Pages 257-289.

[19] See http://www.sec.gov/divisions/marketreg//34-42360.htm

different priority rules, such as rules that would give liquidity providers higher priority than other investors. The Commission has already approved size priority at the NasdaqOMX PX exchange and should look favorably on other experiments as well.

- Marketing paid for with transactions charges. Exchanges should be permitted to experiment with allowing issuers to specify a marketing charge on each transaction in their stock that would be collected just like the SEC fee by the exchanges. For example, an issuer might impose a marketing fee of five cents per share on each stock traded. The issuer could then use the money to help expand the market for the stock by spending the money on incentives for brokers and market makers, as well as research and other investor relations activities.

The proposed exchange has higher standards than the OTCBB.

Target companies for the BX Venture exchange are those firms that do not meet the listing requirements of the other listing exchanges but that are current in their SEC filings and meet some corporate governance and size requirements. These companies now tend to trade on the OTC Bulletin Board.

The proposed exchange has higher standards than the OTCBB, so the Commission should have no qualms whatsoever in approving the BX Venture Exchange. Investors will be better served. The qualitative listing standards for the new exchange appear comparable to the qualitative standards that the Commission previously approved for the old Boston Stock Exchange. Although some of the quantitative standards are smaller, I do not see that as a problem. Investors themselves can decide whether the stocks are too tiny or not.

The market data arrangement permits a good experiment outside the NMS plans.

The Commission has wrestled for many years over market data issues. The current system of consolidated plans made sense when they were created back in the 1970s, but both technology and industry structure have changed dramatically since then. It is by no means clear that this structure is optimal for the coming years. This new exchange could provide a very important pilot experiment for different market data models.

My understanding is that the prints from the local listings on the old Boston Stock Exchange were carried on the “regional” Tape B, but that the new exchange data feed will be outside the NMS plans and not printed on any of the existing consolidated tapes. This could provide a good experiment in the dissemination of market data outside the old NMS plans in which NasdaqOMX directly markets the data to market participants. The results of this experiment will be extremely useful to the Commission as it decides market data questions going forward. It will be particularly interesting to see how a differently regulated market provides consolidation and at what cost. This experiment should be reason enough to approve a new exchange.

Issuers should be free to choose the length of their ticker symbols once the industry can handle the shorter tickers.

We have entered an environment, and rightly so, in which the ticker symbol no longer indicates the primary exchange listing. Issuers can and do have a choice of ticker symbol length. Today all issuers have a choice of up to five character tickers, regardless of whether they are traded on the NYSE, NYSEAmex, NYSE Arca NASDAQ, OTCBB, OTCQX, OTCQB, or Pink Sheets. NASDAQ also lists firms with shorter ticker symbols as well. The old Boston Stock Exchange had a few local listings that had shorter ticker symbols, so there is a clear precedent for using shorter ticker symbols in this space.

When a retail customer enters a four character ticker into a typical brokerage firm web site, they usually do not have to enter the market involved. The web site usually automatically figures this out. Thus, the ticker symbol no longer says anything to the investor about the nature of the firm.

I understand that some brokerage firms systems may not currently have the back office technology to trade shorter tickers on the OTCQX or OTCBB.[20] This is an important consideration, but it should not hold up approval of the market place. Although issuers can theoretically choose to switch to a longer ticker symbol if they think it is more liquid, they may have other considerations. As a retail investor as well as an empirical researcher, I can attest that changing ticker symbols is a major pain that causes a great deal of confusion.

It would be reasonable to require the BX Venture exchange to only carry four or five letter tickers until the industry technology can handle shorter tickers. After that time, I think that a requirement for a longer ticker symbol would unfairly restrict issuers in their choice of tickers, and would force firms with short tickers that get delisted from an exchange to change to longer ticker symbols. Currently, firms with four or five letter tickers that delist and move to the OTCQB or OTCQX do not have to change their tickers. Firms with shorter tickers should not be differentially forced to change tickers.

The Commission should fix the symbology suffix mess.

Speaking of symbology, there is currently no standardization of ticker suffixes across the exchanges. This is absurd and causes lots of confusion for investors within the industry. The Commission should use its ample powers of persuasion to get the exchanges to sit down and agree on a common set of suffixes to ticker symbols. I understand that the industry is working on this but progress seems to be painfully slow.

Summary: Just do it.

[20] http://www.sec.gov/comments/sr-bx-2010-059/bx2010059-2.pdf

Our economy desperately needs a vibrant small cap sector to nurture entrepreneurial ventures that are the companies of tomorrow. For this reason, I hope that entities in this space such as the OTCQX, BX Venture, and other new entrants succeed in restarting America's growth engine. The Commission should rapidly approve innovative experiments in this sector and not slow them down with endless bureaucratic contemplation by people with limited industry experience. The Commission should resist the urge to micro-manage the details of these experiments, especially in ways that attempt to force these incubator markets to be clones of the large-cap sector. The repeated history of failures of attempts to service small-cap stocks with large-cap market structures indicates that something different is needed here.

If you have any questions, feel free to email me at angelj@georgetown.edu or call me at (202) 687-3765.

Respectfully submitted,

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